Inventor search history

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=> d que L83
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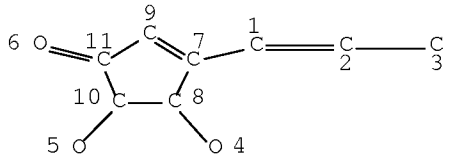


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NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
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GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS  11

STEREO ATTRIBUTES: NONE
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L80         508 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L68 OR L69 OR L70 OR L71 OR
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USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
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FILE 'MEDLINE' ENTERED AT 17:29:23 ON 28 MAR 2008

FILE 'BIOSIS' ENTERED AT 17:29:23 ON 28 MAR 2008
Copyright (c) 2008 The Thomson Corporation
PROCESSING COMPLETED FOR L83
PROCESSING COMPLETED FOR L93
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                ANSWERS '8-10' FROM FILE MEDLINE
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Inventor search history

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L134 ANSWER 1 OF 10 HCAPLUS COPYRIGHT 2008 ACS on STN DUPLICATE 1
ACCESSION NUMBER: 2008:256581 HCAPLUS Full-text
TITLE: The hypopigmentary action of KI-063 (a new tyrosinase inhibitor) combined with terrein
AUTHOR(S): Kim, Dong-Seok; Lee, Sangku; Lee, Hyun-Kyung; Park, Seo-Hyoung; Ryoo, In-Ja; Yoo, Ick-Dong; Kwon, Sun-Bang; Baek, Kwang Jin; Na, Jung-Im; Park, Kyoung-Chan
CORPORATE SOURCE: Department of Biochemistry, College of Medicine, Chung-Ang University, Seoul, 156-756, S. Korea
SOURCE: Journal of Pharmacy and Pharmacology (2008), 60(3), 343-348
CODEN: JPPMAB; ISSN: 0022-3573
PUBLISHER: Pharmaceutical Press
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Resorcinol derivs. are known to inhibit melanin synthesis. In this study, resorcinol derivs. were synthesized and screened for their activity on melanogenesis. KI-063 (a tyrosinase inhibitor) was examined for its effects on melanogenesis using a spontaneously immortalized mouse melanocyte cell line (Mel-Ab). In a cell-free system, KI-063 directly inhibited tyrosinase, the rate-limiting melanogenic enzyme. Moreover, in a cell system, it inhibited melanin synthesis in a concentration-dependent manner. In addition, KI-063 inhibited the activity of cellular tyrosinase. Thus, this study examined the effects of a combination of KI-063 with terrein , an agent that down-regulates microphthalmia-associated transcription factor. The data suggest that KI-063 has an additive effect in combination with terrein. Thus, the suppression of tyrosinase activity by KI-063 and the inhibition of tyrosinase production by terrein appear to be an optimal combination for skin whitening.

L134 ANSWER 2 OF 10 HCAPLUS COPYRIGHT 2008 ACS on STN DUPLICATE 3
ACCESSION NUMBER: 2005:1082506 HCAPLUS Full-text
DOCUMENT NUMBER: 144:250065
TITLE: Terrein, a melanin biosynthesis inhibitor, from Penicillium sp. 20135
AUTHOR(S): Kim, Won-Gon; Ryoo, In-Ja; Park, Seo-Hyoung; Kim, Dong-Seok; Lee, Sangku; Park, Kyoung-Chan; Yoo, Ick-Dong
CORPORATE SOURCE: Korea Research Institute of Bioscience and Biotechnology, Daejeon, 305-600, S. Korea
SOURCE: Journal of Microbiology and Biotechnology (2005), 15(4), 891-894
CODEN: JOMBES; ISSN: 1017-7825
PUBLISHER: Korean Society for Microbiology and Biotechnology
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A melanin biosynthesis inhibitor, named terrein (I), 4,5-dihydroxy-3-propenyl-2-cyclopenten-1-one was isolated from Penicillium sp. I had a strong inhibitory activity on melanin formation in B16 melanoma and melanocyte Mel-Ab cells.
REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L134 ANSWER 3 OF 10 HCAPLUS COPYRIGHT 2008 ACS on STN DUPLICATE 4
ACCESSION NUMBER: 2004:1124990 HCAPLUS Full-text
DOCUMENT NUMBER: 142:214971
TITLE: Synthesis and melanin biosynthesis inhibitory activity of (±)-terrein produced by Penicillium sp. 20135
AUTHOR(S): Lee, Sangku; Kim, Won-Gon; Kim, Eungsoo; Ryoo, In-Ja; Lee, Hyeong Kyu; Kim, Jae Nyoung; Jung, Sang-Hun; Yoo, Ick-Dong
CORPORATE SOURCE: Korea Research Institute of Bioscience and Biotechnology, Taejon, 305-333, S. Korea
SOURCE: Bioorganic & Medicinal Chemistry Letters (2005), 15(2), 471-473
CODEN: BMCLE8; ISSN: 0960-894X
PUBLISHER: Elsevier B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 142:214971
AB Terrein (I) was isolated from Penicillium sp. 20135, prepared by a practical synthetic way, and evaluated for its melanin biosynthesis inhibitory activity.
REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L134 ANSWER 4 OF 10 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2007:1369953 HCAPLUS Full-text
DOCUMENT NUMBER: 148:17709
TITLE: Skin keratinocyte proliferation inhibitor containing terrein
INVENTOR(S): Yoo, Ik Dong; Yoo, In Ja; Kim, Won Gon; Kim, Jong Pyeong; Park, Seo Ryeong; Kim, Dong Seok; Kwon, Seon Bang
PATENT ASSIGNEE(S): Korea Research Institute of Bioscience and Biotechnology, S. Korea; Welskin Co., Ltd.
SOURCE: Repub. Korean Kongkae Taeho Kongbo, 10pp.
CODEN: KRXXA7
DOCUMENT TYPE: Patent
LANGUAGE: Korean
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
KR 2007100046	A	20071010	KR 2006-31595	20060406
KR 771523	B1	20071030		
PRIORITY APPLN. INFO.:			KR 2006-31595	20060406

AB In the invention, terrein is isolated from Penicillium sp. strain. Terrein has melanin synthesis inhibition effect and keratinocyte proliferation inhibition effect. The title inhibitor can be used in therapeutic agents or therapeutic aid of psoriasis, allergic dermatitis, flat lichen, keratosis, and basal cell carcinoma.

L134 ANSWER 5 OF 10 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2007:271409 HCAPLUS Full-text
DOCUMENT NUMBER: 147:228448
TITLE: Terrein, a fungal metabolite, inhibits the epidermal proliferation of skin equivalents
AUTHOR(S): Kim, Dong-Seok; Cho, Hyun-Joo; Lee, Hyun-Kyung; Lee, Woong-Hee; Park, Eun-Sang; Youn,

Sang-Woong; Park, Kyoung-Chan
CORPORATE SOURCE: Department of Dermatology, Seoul National University College of Medicine, Seoul, 110-744, S. Korea
SOURCE: Journal of Dermatological Science (2007), 46(1), 65-68
CODEN: JDSCEI; ISSN: 0923-1811
PUBLISHER: Elsevier Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB In order to study the effects of terrein on the epidermal proliferation, skin equivalent (SEs) were treated with terrein during air-liquid exposure for 7 or 10 days, resp. Media containing terrein were changed every other day. H&E results after 13 days of culture showed that control SEs constructs had a regular stratification of thick epidermis, whereas terrein-treated SEs had a relatively thin epidermis, and a poorer fabricated horny layer. Results demonstrate that terrein has a strong antiproliferative effect on human SEs, and suggest that terrein could be developed to treat hyperproliferative skin diseases such as psoriasis vulgaris.

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L134 ANSWER 6 OF 10 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2005:540480 HCAPLUS Full-text
DOCUMENT NUMBER: 143:83184
TITLE: Terrein compound having melanin biosynthesis inhibitors and its preparation
INVENTOR(S): Yoo, Ick-Dong; Kim, Won-Gon; Ryoo, In-Ja; Kim, Jong-Pyung; Lee, Sangku; Park, Seo-Hyoung; Kim, Dong-Seok; Park, Kyoung-Chan
PATENT ASSIGNEE(S): Korea Research Institute of Bioscience and Biotechnology, S. Korea; Welskin Co., Ltd.
SOURCE: PCT Int. Appl., 30 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005055995	A1	20050623	WO 2004-KR2677	20041019
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RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1691796	A1	20060823	EP 2004-793535	20041019
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK				
CN 1925848	A	20070307	CN 2004-80036912	20041019
JP 2007513941	T	20070531	JP 2006-543731	20041019
US 2007128136	A1	20070607	US 2006-596211	20060602
PRIORITY APPLN. INFO.:			KR 2003-90611 A	20031212
			WO 2004-KR2677 W	20041019

AB The present invention relates to a melanin biosynthesis inhibitor containing terrein compound as an effective ingredient. The terrein compound can be easily separated from Penicillium sp. KCTC 26245, a fungal strain inhabiting domestic soil. It does not directly inhibit tyrosinase but inhibits the expression of MITF (microphthalmia-associated transcription factor) by activating ERK (extracellular signal-regulated kinase) in melanin chromatocytes to give whitening effect. So, the melanin biosynthesis inhibiting effect of the compound is much greater than that of any other conventional inhibitors, and further the effect can be raised when the compound is used together with other inhibitors, owing to their different mechanisms. Thus, the compound of the present invention can be effectively used as a skin trouble treating agent, a skin whitening agent and a browning inhibitor.

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L134 ANSWER 7 OF 10 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2006:1014077 HCAPLUS Full-text
DOCUMENT NUMBER: 146:206142
TITLE: Preparation of terrein compound via formation of 5-(1,1-Dimethylethoxy)-4-[[(1,1-dimethylethyl)dimethylsilyl]oxy]-3-[(E)-1-propenyl]-2-cyclopenten-1-one and reaction sequence involving Grignard reaction, oxidative rearrangement and isomerization
INVENTOR(S): Yoo, Ik Dong; Lee, Sang Ku; Yoo, In Ja; Kim, Won Gon; Kim, Jong Pyung
PATENT ASSIGNEE(S): Korea Research Institute of Bioscience and Biotechnology, S. Korea
SOURCE: Repub. Korean Kongkae Taeho Kongbo, No pp. given CODEN: KRXXA7
DOCUMENT TYPE: Patent
LANGUAGE: Korean
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
KR 2005116055	A	20051209	KR 2004-40956	20040604
PRIORITY APPLN. INFO.:			KR 2004-40956	20040604

AB A method for preparing a terrein compound [i.e., 4,5-dihydroxy-3-(1E)- 1-propenyl-2-cyclopenten-1-one from Penicillium fungus] under the mild and economical conditions with an excellent yield is claimed. The method comprises the reaction of furfuryl alc. with a bromination agent and acetic anhydride to provide 6-acetoxy-2,6-dihydro-3H-pyran-3-one. Furthermore the acetoxy group of the 6-acetoxy-2,6-dihydro-3H-pyran-3-one is converted into a tert-butoxy group to provide 6-tert-butoxy-2,6-dihydro- 3H-pyran-3-one. Then, 4-tert-butoxy-5-hydroxy-cyclopent-2-en-1-one is prepared by ring contraction. A tert-butyldimethylsilyl protecting group is introduced to the hydroxy group of the 4-tert-butoxy-5-hydroxy-cyclopent-2- en-1-one. Treatment of the 4-tert-butoxy-5-tert-butyldimethylsilyloxy- cyclopent-2-en-1-one with an allyl magnesium bromide provides 1-allyl-4-t-butoxy-5-t-butyldimethylsilyloxy-cyclopent-2-en-1-one. Oxidative rearrangement provides 5-tert-butoxy-4-tert-butyldimethylsilyloxy-3-allyl-cyclopent-2-en-1-one. Isomerization provides 5-tert-butoxy-4-tert-butyldimethylsilyloxy-3-(E)-propen-1-yl- cyclopent-2-en-1-one. The tert-Bu protecting group is removed by using a Lewis acid and the tert-butyldimethylsilyl group is removed by acid cleavage.

L134 ANSWER 8 OF 10 MEDLINE on STN DUPLICATE 2

ACCESSION NUMBER: 2007229842 MEDLINE Full-text
DOCUMENT NUMBER: PubMed ID: 17197159
TITLE: Terrein, a fungal metabolite, inhibits the epidermal proliferation of skin equivalents.
AUTHOR: Kim Dong-Seok; Cho Hyun-Joo; Lee Hyun-Kyung; Lee Woong-Hee; Park Eun-Sang; Youn Sang-Woong; Park Kyoung-Chan
SOURCE: Journal of dermatological science, (2007 Apr) Vol. 46, No. 1, pp. 65-8. Electronic Publication: 2007-01-02.
Journal code: 9011485. ISSN: 0923-1811.
PUB. COUNTRY: Netherlands
DOCUMENT TYPE: Letter
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200705
ENTRY DATE: Entered STN: 19 Apr 2007
Last Updated on STN: 17 May 2007
Entered Medline: 16 May 2007

L134 ANSWER 9 OF 10 MEDLINE on STN
ACCESSION NUMBER: 2008201011 IN-PROCESS Full-text
DOCUMENT NUMBER: PubMed ID: 18358890
TITLE: Terrein reduces pulpal inflammation in human dental pulp cells.
AUTHOR: Lee Jung-Chang; Yu Mi-Kyung; Lee Rin; Lee Young-Hee; Jeon Jae-Gyu; Lee Min-Ho; Jhee Eun-Chung; Yoo Ick-Dong ; Yi Ho-Keun
CORPORATE SOURCE: Department of Oral Biochemistry, School of Dentistry, Chonbuk National University, Jeonbuk, Korea.
SOURCE: Journal of endodontics, (2008 Apr) Vol. 34, No. 4, pp. 433-7.
Journal code: 7511484. ISSN: 0099-2399.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: NONMEDLINE; IN-DATA-REVIEW; IN-PROCESS; NONINDEXED; Dental Journals
ENTRY DATE: Entered STN: 25 Mar 2008
Last Updated on STN: 25 Mar 2008

AB Terrein is a bioactive fungal metabolite whose anti-inflammatory properties are virtually unknown. The purpose of this study was to determine the effects of terrein on lipopolysaccharide (LPS)-induced expression of intercellular adhesion molecule-1 (ICAM-1) and vascular cell adhesion molecule-1 (VCAM-1) in human dental pulp cells and to determine the mechanism of the observed effects. The LPS-induced expression of ICAM-1 and VCAM-1 was inhibited by terrein in both a time- and dose-dependent manner. LPS-stimulated translocation of nuclear factor kappa B (NF-kappaB) into the nucleus, which was blocked by inhibitors of amino kinase terminal (AKT, LY294002), extracellular signal regulated kinase 1/2 (ERK 12, PD98059), p38 (SB203580), and c-jun NH2-terminal kinase (JNK, SP600125) or terrein. In addition, these inhibitors and terrein also reduced the level of ICAM-1 and VCAM-1 expression in LPS-induced inflammation of pulp cells. Terrein suppressed NF-kappaB activation by blocking the activation of Akt. These results strongly suggest the potential role of terrein as an anti-inflammatory modulator in pulpal inflammation.

L134 ANSWER 10 OF 10 MEDLINE on STN
ACCESSION NUMBER: 2008155552 IN-PROCESS Full-text
DOCUMENT NUMBER: PubMed ID: 17979972

TITLE: Terrein inhibits keratinocyte proliferation via ERK inactivation and G2/M cell cycle arrest.

AUTHOR: Kim Dong-Seok; Lee Hyun-Kyung; Park Seo-Hyoung; Lee Sangku; Ryoo In-Ja ; Kim Won-Gon; Yoo Ick-Dong; Na Jung-Im; Kwon Sun-Bang; Park Kyoung-Chan

CORPORATE SOURCE: Department of Biochemistry, College of Medicine, Chung-Ang University, Republic of Korea.

SOURCE: Experimental dermatology, (2008 Apr) Vol. 17, No. 4, pp. 312-7. Electronic Publication: 2007-11-02. Journal code: 9301549. E-ISSN: 1600-0625.

PUB. COUNTRY: Denmark

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE) (RESEARCH SUPPORT, NON-U.S. GOV'T)

LANGUAGE: English

FILE SEGMENT: NONMEDLINE; IN-PROCESS; NONINDEXED; Priority Journals

ENTRY DATE: Entered STN: 5 Mar 2008 Last Updated on STN: 5 Mar 2008

AB Terrein, a fungal metabolite, has been recently shown to have a strong antiproliferative effect on skin equivalents. In the present study, we further investigated the effects of terrein on the possible signalling pathways involved in the growth inhibition of human epidermal keratinocytes by examining the regulations of extracellular signal-regulated protein kinase (ERK) and of the Akt pathway by terrein. It was observed that ERK was inactivated by terrein and that keratinocyte proliferation was inhibited, whereas Akt was unaffected. The inhibition of the ERK pathway by U0126 (a specific ERK inhibitor) also had a dose-dependent antiproliferative effect on human keratinocytes. These results indicate that ERK inhibition is involved in keratinocyte growth inhibition by terrein. Moreover, flow cytometric analysis showed that terrein inhibits DNA synthesis, as evidenced by a reduction in the S phase and an increase in the G2/M phase of the cell cycle. Thus, we next examined changes in the expressions of G2/M cell cycle-related proteins. Terrein was found to downregulate cyclin B1 and Cdc2 without Cdc2 phosphorylation, but upregulated p27(KIP1) (p27), a known inhibitor of cyclin-dependent kinase. These results suggest that terrein reduces human keratinocyte proliferation by inhibiting ERK and by decreasing the expressions of cyclin B1 and Cdc2 complex.

Structure & text search history

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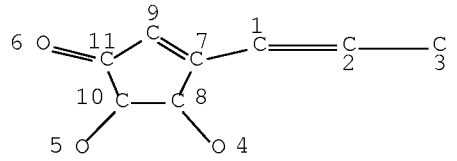


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DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS  11

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                 TEN? OR BROWN? OR MELANIN))
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L31           0 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L10 AND L29
L32           0 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L17 AND L12
L33           2 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L17 AND L13
L34           6 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L17 AND L14
L35           3 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L17 AND L15
L36        1712 SEA FILE=HCAPLUS ABB=ON  PLU=ON  PENICILLIUM(5A)(STRAIN OR
                "KCTC" OR "KCTC(W)262245")
L37           3 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L36 AND L9
L38           3 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L36 AND L10
L39           3 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L36 AND L17
L40           0 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L36 AND L12
L41           1 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L36 AND L13
L42           3 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L36 AND L14
L43          12 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L18 OR L19 OR L20 OR L21 OR
                L22 OR L23 OR L24 OR L25 OR L26 OR L27 OR L28)
L44           7 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L30 OR L31 OR L32 OR L33 OR
                L34 OR L35)
L45           4 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L37 OR L38 OR L39 OR L40 OR
                L41 OR L42)
L46          14 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L43 OR L44 OR L45)
L47             QUE  ABB=ON  PLU=ON  AY<2004 OR PY<2004 OR PRY<2004 OR MY
                <2004 OR REVIEW/DT
L48           9 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L46 AND L47
L49          69 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L9 OR L10
L50          58 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L49 AND L47
L51          56 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L50 AND TERREIN
L52           0 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L51 AND "MELANIN BIOSYNTHESIS
                INHIBIT?"
L53           1 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L51 AND "MELANIN BIOSYNTHESIS"

L54           0 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L51 AND "MELANIN(3N)INHIBIT?"

L55           1 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L51 AND MELANIN
L56           9 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L51 AND BIOSYNTHES?
L57           7 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L51 AND INHIBIT?
L58          15 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L52 OR L53 OR L54 OR L55 OR
                L56 OR L57)
L59           1 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L58 AND (MELANIN OR SKIN OR
                DERM?)
L60           0 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L51 AND L12
L61           1 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L51 AND L13
L62           1 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L51 AND L14
L63           2 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L51 AND L15
L64           2 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L59 OR L60 OR L61 OR L62 OR
                L63)
L65           9 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L64 OR L48
L66           1 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L51 AND BIOSYNTH? AND MELANIN
                AND (INHIBIT? OR BLOCK?)
L67           9 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L65 OR L66


=> d his L92

     (FILE 'MEDLINE, BIOSIS, EMBASE, DRUGU' ENTERED AT 17:03:12 ON 28 MAR 2008)
L92           9 S L88-L91

=> d que L92
L2            1 SEA FILE=REGISTRY ABB=ON  PLU=ON  582-46-7/RN
L4              STR
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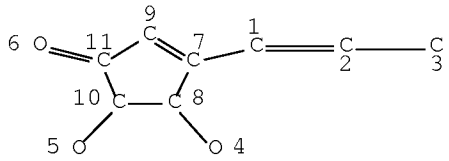

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NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS  11

STEREO ATTRIBUTES: NONE
L6             9 SEA FILE=REGISTRY FAM FUL L4
L9            62 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L2
L10           69 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L6
L12               QUE  ABB=ON  PLU=ON  (CYCLO(W)PENTADIEN? OR CYCLO(W)PENTA
                  N? OR CYCLO(W)PENTEN?)
L13               QUE  ABB=ON  PLU=ON  ((SKIN? OR DERM? OR EPIDERM? OR COMP
                  LECTION? OR COMPLEXION? OR CUTICL?)(3A)(TROUBLE OR CONDIT
                  ION OR BLOTCH? OR SPOT? OR LIVER? OR AGING? OR AGE OR WHI
                  TEN? OR BROWN? OR MELANIN))
L14               QUE  ABB=ON  PLU=ON  ((BROWN? OR MELANIN)(3A)(SYNTHES? OR
                   INHIBIT?))
L15               QUE  ABB=ON  PLU=ON  PENICILLIUM(5A)(STRAIN OR "KCTC" OR
                  "KCTC(W)262245")
L84           44 SEA L9
L85           45 SEA L10
L86           45 SEA L84 OR L85
L87           45 SEA L86 AND TERREIN
L88            2 SEA L87 AND L12
L89            1 SEA L87 AND L13
L90            7 SEA L87 AND L14
L91            1 SEA L87 AND L15
L92            9 SEA (L88 OR L89 OR L90 OR L91)


=> d his L104

     (FILE 'MEDLINE' ENTERED AT 17:08:02 ON 28 MAR 2008)
L104           2 S L100 AND L98

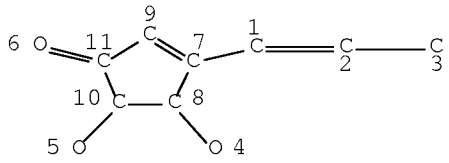
=> d que L104
L98         5353 SEA FILE=MEDLINE ABB=ON  PLU=ON  PENICILLIUM/CT
L100          39 SEA FILE=MEDLINE ABB=ON  PLU=ON  TERREIN?
L104           2 SEA FILE=MEDLINE ABB=ON  PLU=ON  L100 AND L98


=> d his L119

     (FILE 'BIOSIS' ENTERED AT 17:13:14 ON 28 MAR 2008)
L119           4 S L117 OR L118

=> d que L119
L2             1 SEA FILE=REGISTRY ABB=ON  PLU=ON  582-46-7/RN
```

L4 STR



NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 11

STEREO ATTRIBUTES: NONE

L6 9 SEA FILE=REGISTRY FAM FUL L4
L106 19 SEA FILE=BIOSIS ABB=ON PLU=ON L2
L107 20 SEA FILE=BIOSIS ABB=ON PLU=ON L6
L108 5886 SEA FILE=BIOSIS ABB=ON PLU=ON COSMETICS/CT
L109 5151 SEA FILE=BIOSIS ABB=ON PLU=ON ("MELANIELLA "/CT OR "MELANIFEROUS ZONA"/CT OR MELANIN/CT OR "MELANIN "/CT OR "MELANIN A"/CT OR "MELANIN AFFINITY"/CT OR "MELANIN ALLERGY"/CT OR "MELANIN ANALOGUE"/CT OR "MELANIN ASSOCIATED ANTIGEN"/CT OR "MELANIN BINDING PROPERTIES"/CT OR "MELANIN BIOSYNTHESIS"/CT OR "MELANIN BIOSYNTHESIS DEHYDRATASE INHIBITOR"/CT OR "MELANIN BIOSYNTHESIS GENES"/CT OR "MELANIN BIOSYNTHESIS INHIBITOR"/CT OR "MELANIN BIOSYNTHESIS INHIBITOR-CONTAINING COMPOSITION"/CT OR "MELANIN BIOSYNTHETIC ENZYMES"/CT OR "MELANIN BIOSYNTHETIC PATHWAY INTERMEDIATE"/CT OR "MELANIN BLEACH"/CT OR "MELANIN BLEACHING"/CT OR "MELANIN CELLS"/CT OR "MELANIN COLORATION"/CT OR "MELANIN COLUMNS"/CT OR "MELANIN COMPLEX"/CT OR "MELANIN COMPLEXES"/CT OR "MELANIN CONCENTRATING HORMONE"/CT OR "MELANIN CONCENTRATING HORMONE 1"/CT OR "MELANIN CONCENTRATING HORMONE 1 RECEPTOR"/CT OR "MELANIN CONCENTRATING HORMONE 2 RECEPTOR"/CT OR "MELANIN CONCENTRATING HORMONE ANTAGONIST"/CT OR "MELANIN CONCENTRATING HORMONE ANTAGONIST 1"/CT OR "MELANIN CONCENTRATING HORMONE ANTAGONISTS"/CT OR "MELANIN CONCENTRATING HORMONE MESSENGER RNA"/CT OR "MELANIN CONCENTRATING HORMONE MRNA"/CT OR "MELANIN CONCENTRATING HORMONE NEURONAL POPULATION"/CT OR "MELANIN CONCENTRATING HORMONE PRECURSOR MRNA"/CT OR "MELANIN CONCENTRATING HORMONE R1 ANTAGONIST"/CT OR "MELANIN CONCENTRATING HORMONE RECEPTOR"/CT OR "MELANIN CONCENTRATING HORMONE RECEPTOR 1"/CT OR "MELANIN CONCENTRATING HORMONE RECEPTOR 1 ANTAGONIST"/CT OR "MELANIN CONCENTRATING HORMONE RECEPTOR 1 ANTAGONISTS"/CT OR "MELANIN CONCENTRATING HORMONE RECEPTOR 2"/CT OR "MELANIN CONCENTRATING HORMONE RECEPTOR AGONISTS"/CT OR "MELANIN CONCENTRATING HORMONE RECEPTOR ANTAGONIST"/CT OR "MELANIN CONCENTRATING HORMONE RECEPTOR CHIMERIC PROTEIN"/CT OR "MELANIN CONCENTRATING HORMONE RECEPTOR FUSION PROTEIN"/CT OR "MELANIN CONCENTRATING HORMONE RECEPTOR LIGANDS"/CT OR "MELANIN CONCENTRATING HORMONE RECEPTOR MESSENGER RNA"/CT OR "MELANIN CONCENTRATING HORMONE RECEPTOR MRNA"/CT OR "MEL
L110 3 SEA FILE=BIOSIS ABB=ON PLU=ON PENICILLIUM/CT
L111 20 SEA FILE=BIOSIS ABB=ON PLU=ON L106 OR L107
L112 0 SEA FILE=BIOSIS ABB=ON PLU=ON L111 AND (L108 OR COSMETIC?)

```
L113          0 SEA FILE=BIOSIS ABB=ON  PLU=ON  L111 AND (SKIN OR DERM?)
L114          2 SEA FILE=BIOSIS ABB=ON  PLU=ON  L111 AND (L109 OR MELANIN OR
                MELANIZ? OR MELANIS?)
L115          3 SEA FILE=BIOSIS ABB=ON  PLU=ON  L111 AND (L110 OR PENICILLIUM)

L117          4 SEA FILE=BIOSIS ABB=ON  PLU=ON  (L112 OR L113 OR L114 OR L115)

L118          0 SEA FILE=BIOSIS ABB=ON  PLU=ON  L111 AND "MELANIN BIOSYNTHESIS
                INHIBIT?"
L119          4 SEA FILE=BIOSIS ABB=ON  PLU=ON  L117 OR L118


=> d his L133

     (FILE 'EMBASE' ENTERED AT 17:21:37 ON 28 MAR 2008)
L133          5 S L131 OR L132

=> d que L133
L2            1 SEA FILE=REGISTRY ABB=ON  PLU=ON  582-46-7/RN
L4              STR
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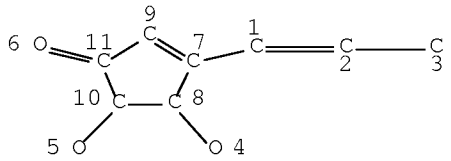


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NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS  11

STEREO ATTRIBUTES: NONE
L6            9 SEA FILE=REGISTRY FAM FUL L4
L120         23 SEA FILE=EMBASE ABB=ON  PLU=ON  L2
L121         23 SEA FILE=EMBASE ABB=ON  PLU=ON  L6
L122         23 SEA FILE=EMBASE ABB=ON  PLU=ON  L120 OR L121
L123       4964 SEA FILE=EMBASE ABB=ON  PLU=ON  ("MELANI D"/CT OR MELANIDINE/CT
                 OR MELANIN/CT OR "MELANIZATION INHIBITING FACTOR"/CT OR
                "MELANIZATION INHIBITING FACTOR: EC, ENDOGENOUS COMPOUND"/CT
                OR "MELANIZATION INHIBITING PROTEIN"/CT OR "MELANIZATION
                INHIBITING PROTEIN: EC, ENDOGENOUS COMPOUND"/CT OR "MELANIZATIO
                N PROTEASE 1"/CT)
L124       6159 SEA FILE=EMBASE ABB=ON  PLU=ON  COSMETIC/CT
L125          2 SEA FILE=EMBASE ABB=ON  PLU=ON  L122 AND L123
L126          5 SEA FILE=EMBASE ABB=ON  PLU=ON  L122 AND MELANIN
L127          0 SEA FILE=EMBASE ABB=ON  PLU=ON  L122 AND L124
L128          0 SEA FILE=EMBASE ABB=ON  PLU=ON  L122 AND "MELANIN BIOSYNTHESIS
                INHIBIT?"
L129         31 SEA FILE=EMBASE ABB=ON  PLU=ON  TERREIN
L130         31 SEA FILE=EMBASE ABB=ON  PLU=ON  L122 OR L129
L131          5 SEA FILE=EMBASE ABB=ON  PLU=ON  L130 AND (MELANIN? OR MELANIZ?
                OR MELANIS?)
L132          5 SEA FILE=EMBASE ABB=ON  PLU=ON  (L125 OR L126 OR L127 OR L128)
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L133          5 SEA FILE=EMBASE ABB=ON  PLU=ON  L131 OR L132


=> dup rem L67 L92 L104 L119 L133
FILE 'HCAPLUS' ENTERED AT 17:31:04 ON 28 MAR 2008
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2008 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'BIOSIS' ENTERED AT 17:31:04 ON 28 MAR 2008
Copyright (c) 2008 The Thomson Corporation

FILE 'EMBASE' ENTERED AT 17:31:04 ON 28 MAR 2008
Copyright (c) 2008 Elsevier B.V. All rights reserved.

FILE 'MEDLINE' ENTERED AT 17:31:04 ON 28 MAR 2008
PROCESSING COMPLETED FOR L67
PROCESSING COMPLETED FOR L92
PROCESSING COMPLETED FOR L104
PROCESSING COMPLETED FOR L119
PROCESSING COMPLETED FOR L133
L135         17 DUP REM L67 L92 L104 L119 L133 (12 DUPLICATES REMOVED)
                ANSWERS '1-9' FROM FILE HCAPLUS
                ANSWERS '10-14' FROM FILE BIOSIS
                ANSWERS '15-17' FROM FILE EMBASE
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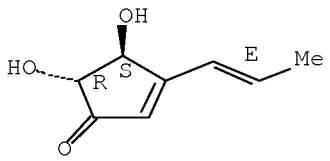
Structure & text search results

=> d L135 1-9 ibib ed abs hitind hitstr

L135 ANSWER 1 OF 17 HCAPLUS COPYRIGHT 2008 ACS on STN DUPLICATE 6
ACCESSION NUMBER: 1974:504805 HCAPLUS Full-text
DOCUMENT NUMBER: 81:104805
ORIGINAL REFERENCE NO.: 81:16567a,16570a
TITLE: Synthesis of terrein, a metabolite of Aspergillus terreus
AUTHOR(S): Auerbach, Joseph; Weinreb, Steven M.
CORPORATE SOURCE: Dep. Chem., Fordham Univ., Bronx, NY, USA
SOURCE: Journal of the Chemical Society, Chemical Communications (1974), (8), 298-9
CODEN: JCCCAT; ISSN: 0022-4936
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 12 May 1984
GI For diagram(s), see printed CA Issue.
AB (±)-Terrein (I), a metabolite of A. terreus, was prepared in 9 steps from the epoxide II.
CC 24-4 (Alicyclic Compounds)
Section cross-reference(s): 10
IT 54192-03-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(total synthesis of)
IT 54192-03-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(total synthesis of)
RN 54192-03-9 HCAPLUS
CN 2-Cyclopenten-1-one, 4,5-dihydroxy-3-(1E)-1-propenyl-, (4R,5S)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.
Double bond geometry as shown.



L135 ANSWER 2 OF 17 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2005:540480 HCAPLUS Full-text
DOCUMENT NUMBER: 143:83184
TITLE: Terrein compound having melanin biosynthesis inhibitors and its preparation
INVENTOR(S): Yoo, Ick-Dong; Kim, Won-Gon; Ryoo, In-Ja; Kim, Jong-Pyung; Lee, Sangku; Park, Seo-Hyoung; Kim, Dong-Seok; Park, Kyoung-Chan
PATENT ASSIGNEE(S): Korea Research Institute of Bioscience and Biotechnology, S. Korea; Welskin Co., Ltd.
SOURCE: PCT Int. Appl., 30 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005055995	A1	20050623	WO 2004-KR2677	20041019 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1691796	A1	20060823	EP 2004-793535	20041019 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK				
CN 1925848	A	20070307	CN 2004-80036912	20041019 <--
JP 2007513941	T	20070531	JP 2006-543731	20041019 <--
US 2007128136	A1	20070607	US 2006-596211	20060602 <--
PRIORITY APPLN. INFO.:			KR 2003-90611 A	20031212 <--
			WO 2004-KR2677 W	20041019

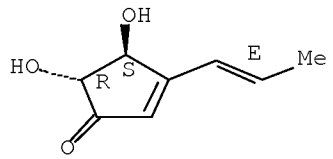
ED Entered STN: 23 Jun 2005

AB The present invention relates to a melanin biosynthesis inhibitor containing terrein compound as an effective ingredient. The terrein compound can be easily separated from Penicillium sp. KCTC 26245, a fungal strain inhabiting domestic soil. It does not directly inhibit tyrosinase but inhibits the expression of MITF (microphthalmia-associated transcription factor) by activating ERK (extracellular signal-regulated kinase) in melanin chromatocytes to give whitening effect. So, the melanin biosynthesis inhibiting effect of the compound is much greater than that of any other conventional inhibitors, and further the effect can be raised when the compound is used together with other inhibitors, owing to their different mechanisms. Thus, the compound of the present invention can be effectively used as a skin trouble treating agent, a skin whitening agent and a browning inhibitor.

IC ICM A61K031-122
CC 62-4 (Essential Oils and Cosmetics)
Section cross-reference(s): 16
ST terrein Penicillium cosmetic melanin inhibitor
IT Transcription factors
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(MITF (microphthalmia-associated transcription factor); terrein compound having melanin biosynthesis inhibitors and its preparation)
IT Cosmetics
(skin-lightening; terrein compound having melanin biosynthesis inhibitors and its preparation)
IT Melanocyte
(terrein compound having melanin biosynthesis inhibitors and its preparation)
IT Melanins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(terrein compound having melanin biosynthesis

inhibitors and its preparation)
IT Penicillium
(terrein compound having melanin biosynthesis inhibitors and its preparation from Penicillium)
IT 582-46-7P, Terrein
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); COS (Cosmetic use); PUR (Purification or recovery); BIOL (Biological study); PREP (Preparation); USES (Uses)
(terrein compound having melanin biosynthesis inhibitors and its preparation)
IT 142243-02-5, Extracellular signal-regulated kinase
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(terrein compound having melanin biosynthesis inhibitors and its preparation)
IT 582-46-7P, Terrein
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); COS (Cosmetic use); PUR (Purification or recovery); BIOL (Biological study); PREP (Preparation); USES (Uses)
(terrein compound having melanin biosynthesis inhibitors and its preparation)
RN 582-46-7 HCAPLUS
CN 2-Cyclopenten-1-one, 4,5-dihydroxy-3-(1E)-1-propen-1-yl-, (4S,5R)- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



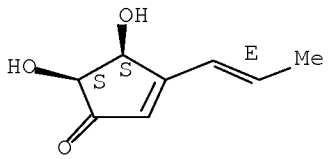
IT 142243-02-5, Extracellular signal-regulated kinase
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(terrein compound having melanin biosynthesis inhibitors and its preparation)
RN 142243-02-5 HCAPLUS
CN Kinase (phosphorylating), mitogen-activated protein (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L135 ANSWER 3 OF 17 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2002:623846 HCAPLUS Full-text
DOCUMENT NUMBER: 137:337687
TITLE: Phosphonate-mediated synthesis of biologically active cyclopentanones and cyclopentenones
AUTHOR(S): Mikolajczyk, Marian
CORPORATE SOURCE: Center of Molecular and Macromolecular Studies, Polish Academy of Sciences, Lodz, 90-363, Pol.
SOURCE: Phosphorus, Sulfur and Silicon and the Related Elements (2002), 177(6-7), 1839-1842
CODEN: PSSLEC; ISSN: 1042-6507
PUBLISHER: Taylor & Francis Ltd.
DOCUMENT TYPE: Journal; General Review

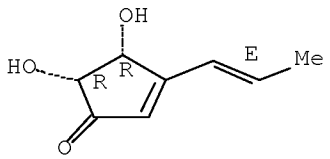
LANGUAGE: English
ED Entered STN: 19 Aug 2002
AB A review. The synthesis and reactivity of 3-(phosphorylmethyl)cyclopent-2-enones as well as a complete desymmetrization of meso-tartaric acid are discussed as a platform for developing the synthesis of racemic rosaprostol and enantiomeric forms of prostaglandin B1 Me ester, isoterrein, and neplanocin A.
CC 26-0 (Biomolecules and Their Synthetic Analogs)
Section cross-reference(s): 33
IT 28186-87-0P, (+)-Prostaglandin B1 methyl ester 72877-50-0P, Neplanocin A 180682-72-8P, (-)-Isoterrein 180682-73-9P, (+)-Isoterrein 218917-12-5P, (±)-Rosaprostol 294888-38-3P, (-)-Prostaglandin B1 methyl ester
RL: SPN (Synthetic preparation); PREP (Preparation)
(phosphonate-mediated synthesis of biol. active cyclopentanones and cyclopentenones)
IT 180682-72-8P, (-)-Isoterrein 180682-73-9P, (+)-Isoterrein
RL: SPN (Synthetic preparation); PREP (Preparation)
(phosphonate-mediated synthesis of biol. active cyclopentanones and cyclopentenones)
RN 180682-72-8 HCAPLUS
CN 2-Cyclopenten-1-one, 4,5-dihydroxy-3-(1E)-1-propenyl-, (4S,5S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.



RN 180682-73-9 HCAPLUS
CN 2-Cyclopenten-1-one, 4,5-dihydroxy-3-(1E)-1-propenyl-, (4R,5R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).
Double bond geometry as shown.

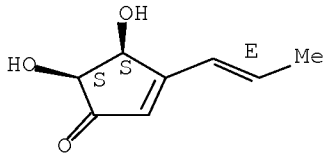


REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L135 ANSWER 4 OF 17 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1996:473439 HCAPLUS Full-text
DOCUMENT NUMBER: 125:195253

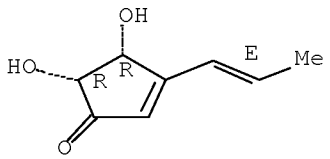
TITLE: The first synthesis of enantiopure (-)- and (+)-isoterrein from optically inactive meso-tartaric acid
AUTHOR(S): Mikolajczyk, Marian; Mikina, Maciej; Wieczorek, Michal W.; Blaszczyk, Jaroslaw
CORPORATE SOURCE: Centre Molecular Macromolecular Studies, Polish Academy of Sciences, Lodz, 90-363, Pol.
SOURCE: Angewandte Chemie, International Edition in English (1996), 35(13/14), 1560-1562
CODEN: ACIEAY; ISSN: 0570-0833
PUBLISHER: VCH
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 10 Aug 1996
AB Both (-)- and (+)-isoterrein were prepared from meso-tartaric acid by asymmetrization by ketalization with camphor.
CC 26-6 (Biomolecules and Their Synthetic Analogs)
IT 180682-72-8P, (-)-Isoterrein 180682-73-9P, (+)-Isoterrein
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of enantiopure (-)- and (+)-isoterrein from meso-tartaric acid)
IT 180682-72-8P, (-)-Isoterrein 180682-73-9P, (+)-Isoterrein
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of enantiopure (-)- and (+)-isoterrein from meso-tartaric acid)
RN 180682-72-8 HCAPLUS
CN 2-Cyclopenten-1-one, 4,5-dihydroxy-3-(1E)-1-propenyl-, (4S,5S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.



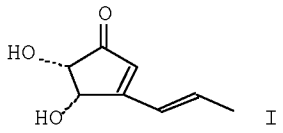
RN 180682-73-9 HCAPLUS
CN 2-Cyclopenten-1-one, 4,5-dihydroxy-3-(1E)-1-propenyl-, (4R,5R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).
Double bond geometry as shown.



L135 ANSWER 5 OF 17 HCAPLUS COPYRIGHT 2008 ACS on STN

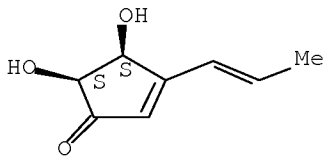
ACCESSION NUMBER: 1994:216735 HCAPLUS Full-text
DOCUMENT NUMBER: 120:216735
TITLE: A general approach to the synthesis of functionalized cycloalkenones. Total synthesis of iso-terrein
AUTHOR(S): Mikina, Maciej; Mikolajczyk, Marian
CORPORATE SOURCE: Cent. Mol. Macromol. Stud., Pol. Acad. Sci., Lodz, 90-363, Pol.
SOURCE: Phosphorus, Sulfur and Silicon and the Related Elements (1993), 75(1-4), 39-42
CODEN: PSSLEC; ISSN: 1042-6507
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 30 Apr 1994
GI



I

AB A symposium lecture with 9 refs. The synthesis and chemical behavior of bis-β-ketophosphonates (RO)2P(O)CH2CO(CH2)nCH2COCH2P(O)(OR)2 (R = Me, Et; n = 1-3) are described. A new approach to the synthesis of chiral iso-terrein (I) was developed which utilizes bis-β-ketophosphonate chemical
CC 24-1 (Alicyclic Compounds)
Section cross-reference(s): 26, 29
IT 84196-90-7P 108264-48-8P 153983-75-6P 154096-62-5P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
IT 154096-62-5P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 154096-62-5 HCAPLUS
CN 2-Cyclopenten-1-one, 4,5-dihydroxy-3-(1-propenyl)-, cis- (9CI) (CA INDEX NAME)

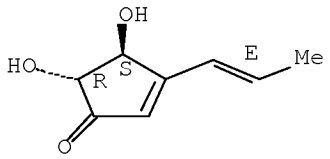
Relative stereochemistry.
Double bond geometry unknown.



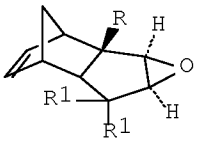
L135 ANSWER 6 OF 17 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1990:115080 HCAPLUS Full-text
DOCUMENT NUMBER: 112:115080
TITLE: Gradient high-performance liquid chromatography using alkylphenone retention indices of insectidical

extracts of Penicillium strains
AUTHOR(S): Russell, R.; Paterson, M.; Kemmelmeier, Carlos
CORPORATE SOURCE: Int. Mycol. Inst., CAB, Kew/Surrey, TW9 3AF, UK
SOURCE: Journal of Chromatography (1989), 483, 153-68
CODEN: JOCRAM; ISSN: 0021-9673
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 31 Mar 1990
AB Purified exts. of 4 Penicillium strains which were active against the insect pest Spodoptera littoralis were analyzed by gradient HPLC for secondary metabolites using alkylphenone retention indexes. HPLC of pure secondary metabolite stds. detected previously in the exts. by TLC was undertaken in order to obtain bracketed retention indexes. More metabolites were detected by HPLC than by TLC, although some compds. detected by TLC in some strains were not detected by this HPLC method. A minority of metabolites were exclusive to each strain, and most were produced by >1 strain. The profiles were more characteristic of each strain when only the larger peaks were considered. This emphasizes the importance of detection limits in secondary metabolite anal. Some of the implications of these analyses to fungus toxicity and systematic mycol. are discussed.
CC 9-3 (Biochemical Methods)
Section cross-reference(s): 5, 10
IT 81-84-5, 1H,3H-Naphtho[1,8-cd]pyran-1,3-dione 90-65-3, Penicillic acid 126-07-8, Griseofulvin 129-24-8, Viridicatin 149-29-1, Patulin 303-47-9, Ochratoxin A 476-56-2, Islandicin 476-57-3, Erythroglaucin 480-64-8 481-74-3 495-08-9 501-30-4, Kojic acid 518-75-2, Citrinin 567-61-3, 6-Methylsalicylic acid 570-03-6, Terrestric acid 582-46-7, Terrein 602-06-2, Skyrin 1685-91-2, Xanthomegnin 3733-72-0, Griseophenone C 11042-38-9, Xanthocillin 12627-35-9, Penitrem A 15222-53-4, Lichexanthone 15265-28-8, Palitantin 18172-33-3, Cyclopiazonic acid 20007-85-6, Cyclopenol 20007-87-8, Cyclopenin 20716-98-7, Norlichexanthone 21794-01-4, Rubratoxin B 22775-52-6, Mycelianamide 23402-09-7, Brevianamide A 24280-93-1, Mycophenolic acid 25186-77-0, Pachybasic acid 29119-03-7, Frequentin 31077-93-7, Purpurogenone 33404-61-4, Carlosic acid 38747-39-6 39277-41-3, Viridicatum toxin 55625-78-0, Viomellein 56299-00-4, PR-toxin 58735-64-1, Roquefortine C 58735-66-3, Roquefortine D 58800-19-4, Roquefortine A 58800-20-7, Roquefortine B 69448-97-1, Lapidosin 70553-75-2, Aflatrem 79297-77-1, Desacetylpebrolide 106061-05-6 106061-06-7
RL: PROC (Process)
(separation of, of Penicillium by HPLC)
IT 582-46-7, Terrein
RL: PROC (Process)
(separation of, of Penicillium by HPLC)
RN 582-46-7 HCAPLUS
CN 2-Cyclopenten-1-one, 4,5-dihydroxy-3-(1E)-1-propen-1-yl-, (4S,5R)- (CA INDEX NAME)

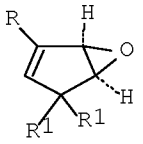
Absolute stereochemistry.
Double bond geometry as shown.



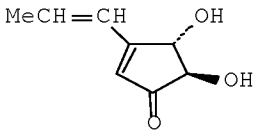
L135 ANSWER 7 OF 17 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1982:142527 HCAPLUS Full-text
DOCUMENT NUMBER: 96:142527
ORIGINAL REFERENCE NO.: 96:23429a,23432a
TITLE: An efficient stereospecific total synthesis of (±)-terrein
AUTHOR(S): Klunder, A. J. H.; Bos, W.; Zwanenburg, B.
CORPORATE SOURCE: Dep. Org. Chem., Univ. Nijmegen, Nijmegen, 6525 ED, Neth.
SOURCE: Tetrahedron Letters (1981), 22(45), 4557-60
CODEN: TELEAY; ISSN: 0040-4039
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 12 May 1984
GI



I



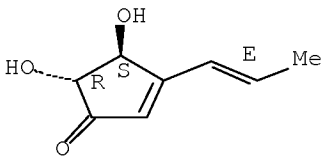
II



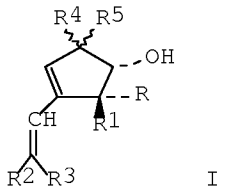
IV

AB Flash vacuum pyrolysis of the tricyclodecenone epoxide I (R = CH:CHMe, R12 = O) and of the acetals I (R = CHO, CH:CHMe; R1 = OMe) gave the cyclopentadienone epoxide II (R = CH:CHMe, R12 = O) (III) and the acetals II (R = CHO, CH:CHMe; R1 = OMe), resp. II were suitable precursors for the title compound IV. Thus, hydrolysis of III in Me2CO containing H2SO4 for 4 days at room temperature gave 55% IV.
CC 26-6 (Biomolecules and Their Synthetic Analogs)
Section cross-reference(s): 22, 24
IT 54192-03-9P
RL: RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(stereospecific total synthesis of)
IT 54192-03-9P
RL: RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(stereospecific total synthesis of)
RN 54192-03-9 HCAPLUS
CN 2-Cyclopenten-1-one, 4,5-dihydroxy-3-(1E)-1-propenyl-, (4R,5S)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.
Double bond geometry as shown.



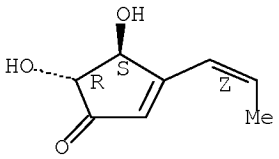
L135 ANSWER 8 OF 17 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1977:484577 HCAPLUS Full-text
DOCUMENT NUMBER: 87:84577
ORIGINAL REFERENCE NO.: 87:13435a,13438a
TITLE: Photochemical transformations. Part 35. A simple synthesis of racemic terrein
AUTHOR(S): Barton, Derek H. R.; Hulshof, Lumbertus A.
CORPORATE SOURCE: Chem. Dep., Imp. Coll., London, UK
SOURCE: Journal of the Chemical Society, Perkin Transactions 1: Organic and Bio-Organic Chemistry (1972-1999) (1977), (9), 1103-6
CODEN: JCPRB4; ISSN: 0300-922X
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 12 May 1984
GI



I

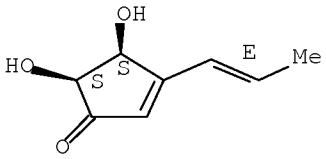
AB Photochem. ring contraction in the presence of NaBH3CN of 5-hydroxy-2-[(E)-propenyl]-4-pyrone, prepared from the 2-chloromethyl analog by sequential treatment with PPh3 and MeCHO, gave 7.5% terrein (I; R = R3 = H, R1 = OH, R2 = Me, R4R5 = O). The photolysis also gave 24.7% I (R = OH, R1 = R3 = H, R2 = Me, R4R5 = O), 1.4% I (R = R3 = H, R1 = OH, R2 = Me, R4, R5 = H, OH), and 3.4% I (R = R2 = H, R1 = OH, R3 = Me, R4R5 = O).
CC 24-4 (Alicyclic Compounds)
Section cross-reference(s): 27
IT 63861-22-3P 63861-23-4P 63903-20-8P 63903-21-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
IT 54192-03-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, by photochem. ring contraction of pyrone derivative)
IT 63903-20-8P 63903-21-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 63903-20-8 HCAPLUS
CN 2-Cyclopenten-1-one, 4,5-dihydroxy-3-(1-propenyl)-, [3(Z),4α,5β]- (9CI) (CA INDEX NAME)

Relative stereochemistry.
Double bond geometry as shown.



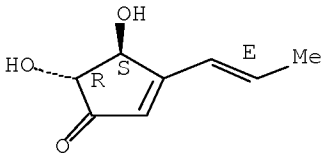
RN 63903-21-9 HCAPLUS
CN 2-Cyclopenten-1-one, 4,5-dihydroxy-3-(1-propenyl)-, [3(E),4α,5α]- (9CI) (CA INDEX NAME)

Relative stereochemistry.
Double bond geometry as shown.



IT 54192-03-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, by photochem. ring contraction of pyrone derivative)
RN 54192-03-9 HCAPLUS
CN 2-Cyclopenten-1-one, 4,5-dihydroxy-3-(1E)-1-propenyl-, (4R,5S)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.
Double bond geometry as shown.



L135 ANSWER 9 OF 17 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1972:431343 HCAPLUS Full-text
DOCUMENT NUMBER: 77:31343
ORIGINAL REFERENCE NO.: 77:5215a,5218a
TITLE: Humic acids from fungal origin. I. Infrared spectra
AUTHOR(S): Saiz-Jimenez, C.; Martin Martinez, F.
CORPORATE SOURCE: Cent. Edafol. Biol. Apl. Cuarto, Seville, Spain
SOURCE: Anales de Edafologia y Agrobiologia (1972), 31(1-2), 133-41
CODEN: AEDAAB; ISSN: 0365-1797
DOCUMENT TYPE: Journal
LANGUAGE: Spanish
ED Entered STN: 12 May 1984

AB A strain of Penicillium and a strain of Alternaria chartarum were isolated from black soil in Andalusia and incubated in Czapek-Dox solution or mineral solution supplemented with glucose and asparagine, at 25°, for 6 months. Filtrates were then acidified to pH 1 and ppts. prepared for examination at 4000 to 900 cm-1. Humic acids isolated from the soil showed strong bands between 1400 and 1700 cm-1, revealing prevalence of carboxylic groups (absorbing mainly around 1709 cm-1). Humic acids from fungi absorbed weakly about 1709 cm-1. The Penicillium species first synthesized red-pigments, which progressively darkened into lignin-like polymers. A. chartarum synthesized melanin which was released into the medium following autolysis.
CC 10-1 (Microbial Biochemistry)

=> d L135 10-17 ibib ab hit

L135 ANSWER 10 OF 17 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN DUPLICATE 4
ACCESSION NUMBER: 2005:164080 BIOSIS Full-text
DOCUMENT NUMBER: PREV200500158655
TITLE: Synthesis and melanin biosynthesis inhibitory activity of (+/-)-terrein produced by Penicillium sp 20135.
AUTHOR(S): Lee, Sangku; Kim, Won-Gon; Kim, Eungsoo; Ryoo, In-Ja; Lee, Hyeong Kyu; Kim, Jae Nyoung; Jung, Sang-Hun; Yoo, Ick-Dong [Reprint Author]
CORPORATE SOURCE: Korea Res Inst Biosci and Biotechnol, 52 Oun,Yusong, Taejon, 305333, South Korea
idyoo@kribb.re.kr
SOURCE: Bioorganic & Medicinal Chemistry Letters, (January 17 2005) Vol. 15, No. 2, pp. 471-473. print.
CODEN: BMCLE8. ISSN: 0960-894X.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 27 Apr 2005
Last Updated on STN: 27 Apr 2005
AB Terrein was isolated from Penicillium sp. 20135, prepared by a practical synthetic way, and evaluated first time for its melanin biosynthesis inhibitory activity. Copyright 2004 Elsevier Ltd. All rights reserved.
TI Synthesis and melanin biosynthesis inhibitory activity of (+/-)-terrein produced by Penicillium sp 20135.
AB Terrein was isolated from Penicillium sp. 20135, prepared by a practical synthetic way, and evaluated first time for its melanin biosynthesis inhibitory activity. Copyright 2004 Elsevier Ltd. All rights reserved.
IT Major Concepts
Biochemistry and Molecular Biophysics; Integumentary System (Chemical Coordination and Homeostasis)
IT Parts, Structures, & Systems of Organisms
epidermis: integumentary system; keratinocyte: integumentary system; melanocyte: integumentary system
IT Chemicals & Biochemicals
melanin: biosynthesis; terrein
ORGN Classifier
Fungi Imperfecti or Deuteromycetes 15500
Super Taxa
Fungi; Plantae
Organism Name
Penicillium (genus): strain-20135
Taxa Notes
Fungi, Microorganisms, Nonvascular Plants, Plants
RN 582-46-7 (terrein)

L135 ANSWER 11 OF 17 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN DUPLICATE 5

ACCESSION NUMBER: 2005:58304 BIOSIS Full-text
DOCUMENT NUMBER: PREV200500052127
TITLE: Terrein: a new melanogenesis inhibitor and its mechanism.
AUTHOR(S): Park, S.-H.; Kim, D.-S.; Kim, W.-G.; Ryoo, I.-J.; Lee, D.-H.; Huh, C.-H.; Youn, S.-W.; Yoo, I.-D.; Park, K.-C. [Reprint Author]
CORPORATE SOURCE: Bundang HospDept Dermatol, Seoul Natl Univ, 300 Gumi Dong, Seongnam Si, Kyoungki Do, 463707, South Korea
gcpark@snu.ac.kr
SOURCE: CMLS Cellular and Molecular Life Sciences, (November 2004) Vol. 61, No. 22, pp. 2878-2885. print.
ISSN: 1420-682X.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 3 Feb 2005
Last Updated on STN: 3 Feb 2005

AB Terrein is a bioactive fungal metabolite whose effects are almost unknown. In this study, we found for the first time that terrein has a strong hypopigmentary effect in a spontaneously immortalized mouse melanocyte cell line, Mel-Ab. Treatment of Mel-Ab cells with terrein (10 - 100 muM) for 4 days significantly reduced melanin levels in a dose-dependent manner. In addition, terrein at the same concentration also reduced tyrosinase activity. We then investigated whether terrein influences the extracellular signal-regulated protein kinase (ERK) pathway and the expression of microphthalmia-associated transcription factor (MITF), which is required for tyrosinase expression. Terrein was found to induce sustained ERK activation and MITF down-regulation, and luciferase assays showed that terrein inhibits MITF promoter activity in a dose-dependent manner. To elucidate the correlation between ERK pathway activation and a decreased MITF transcriptional level, PD98059, a specific inhibitor of the ERK pathway, was applied before terrein treatment and found to abrogate the terrein-induced MITF attenuation. Terrein also reduced the tyrosinase protein level for at least 72 h. These results suggest that terrein reduces melanin synthesis by reducing tyrosinase production via ERK activation, and that this is followed by MITF down-regulation.

TI Terrein: a new melanogenesis inhibitor and its mechanism.

AB Terrein is a bioactive fungal metabolite whose effects are almost unknown. In this study, we found for the first time that terrein has a strong hypopigmentary effect in a spontaneously immortalized mouse melanocyte cell line, Mel-Ab. Treatment of Mel-Ab cells with terrein (10 - 100 muM) for 4 days significantly reduced melanin levels in a dose-dependent manner. In addition, terrein at the same concentration also reduced tyrosinase activity. We then investigated whether terrein influences the extracellular signal-regulated protein kinase (ERK) pathway and the expression of microphthalmia-associated transcription factor (MITF), which is required for tyrosinase expression. Terrein was found to induce sustained ERK activation and MITF down-regulation, and luciferase assays showed that terrein inhibits MITF promoter activity in a dose-dependent manner. To elucidate the correlation between ERK pathway activation and a decreased MITF transcriptional level, PD98059, a specific inhibitor of the ERK pathway, was applied before terrein treatment and found to abrogate the terrein-induced MITF attenuation. Terrein also reduced the tyrosinase protein level for at least 72 h. These results suggest that terrein reduces melanin synthesis by reducing tyrosinase production via ERK activation, and that this is followed by MITF down-regulation.

IT Major Concepts

Biochemistry and Molecular Biophysics; Integumentary System (Chemical Coordination and Homeostasis)
IT Chemicals & Biochemicals
MITF promoter; PD98059: enzyme inhibitor-drug; extracellular signal-regulated protein kinase [EC 2.7.1.37]; melanin; microphthalmia-associated transcription factor [MITF]; terrein : fungal metabolite; tyrosinase
RN 167869-21-8 (PD98059)
142243-02-5 (extracellular signal-regulated protein kinase)
9026-43-1 (extracellular signal-regulated protein kinase)
142243-02-5 (EC 2.7.1.37)
9026-43-1 (EC 2.7.1.37)
582-46-7 (terrein)
9002-10-2 (tyrosinase)

L135 ANSWER 12 OF 17 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
ACCESSION NUMBER: 1991:53776 BIOSIS Full-text
DOCUMENT NUMBER: PREV199191032057; BA91:32057
TITLE: A TOTAL SYNTHESIS OF RACEMIC AND OPTICALLY ACTIVE TERREIN TRANS-4 5 DIHYDROXY-3E-1-PROPENYL-2-CYCLOPENTEN-1-ONE.
AUTHOR(S): KOLB H C [Reprint author]; HOFFMANN H M R
CORPORATE SOURCE: DEP CHEM, IMPERIAL COLLEGE SCI TECHNOL MED, LONDON SW7 2AY, ENGLAND, UK
SOURCE: Tetrahedron Asymmetry, (1990) Vol. 1, No. 4, pp. 237-250. CODEN: TASYE3. ISSN: 0957-4166.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: ENGLISH
ENTRY DATE: Entered STN: 10 Jan 1991
Last Updated on STN: 10 Jan 1991
AB Two routes to terrein (1), employing a novel ring contraction of 6-alkoxy-2,3-dihydro-6H-pyran-3-ones (5, 13) are described. Separation into enantiomers was carried out by classical resolution via diastereomeric camphanic acid ester intermediates (14, 15). A new method for cleavage of the 2-(trimethylsilyl) ethyl protecting group in the presence of acid and base sensitive functionality is reported.
IT Miscellaneous Descriptors
ASPERGILLUS PENICILLIUM ANTIBACTERIAL AGENT AGRICULTURAL APPLICATIONS
RN 582-46-7 (TERREIN)

L135 ANSWER 13 OF 17 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
ACCESSION NUMBER: 1979:119563 BIOSIS Full-text
DOCUMENT NUMBER: PREV197917059563; BR17:59563
TITLE: TERREIN AN OPTICALLY ACTIVE PROSTAGLANDIN SYNTHON OF FUNGAL ORIGIN PART 2 CHEMICAL CONVERSION TO 4 R ACETOXY-2 CYCLO PENTENONE.
AUTHOR(S): MITSCHER L A; CLARK G W III; HUDSON P B
SOURCE: Tetrahedron Letters, (1978) No. 29, pp. 2553-2556. CODEN: TELEAY. ISSN: 0040-4039.
DOCUMENT TYPE: Article
FILE SEGMENT: BR
LANGUAGE: Unavailable
TI TERREIN AN OPTICALLY ACTIVE PROSTAGLANDIN SYNTHON OF FUNGAL ORIGIN PART 2 CHEMICAL CONVERSION TO 4 R ACETOXY-2 CYCLO PENTENONE.
RN 582-46-7 (TERREIN)
28982-58-3 (CYCLO PENTENONE)

L135 ANSWER 14 OF 17 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
ACCESSION NUMBER: 1974:146707 BIOSIS Full-text
DOCUMENT NUMBER: PREV197457046407; BA57:46407
TITLE: SIMULTANEOUS DETECTION OF METABOLITES FROM SEVERAL TOXIGENIC FUNGI.
AUTHOR(S): PERO R W; HARVAN D
SOURCE: Journal of Chromatography, (1973) Vol. 80, No. 2, pp. 255-258.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: Unavailable
IT Miscellaneous Descriptors
ALTERNARIA-SP ASPERGILLUS-SP PENICILLIUM-SP HUMAN ANIMAL FOODSTUFFS GAS CHROMATOGRAPHY FLAME IONIZATION DETECTOR ERYTHRITOL MANNITOL PALMITIC-ACID STEARIC-ACID SUCCINIC-ACID KOJIC-ACID ALTENUENE ALTERNARIOL PATULIN PENICILLIC-ACID TERREIN
RN 149-32-6 (ERYTHRITOL)
69-65-8Q (MANNITOL)
87-78-5Q (MANNITOL)
57-10-3 (PALMITIC-ACID)
57-11-4 (STEARIC-ACID)
110-15-6 (SUCCINIC-ACID)
501-30-4 (KOJIC-ACID)
29752-43-0 (ALTENUENE)
641-38-3 (ALTERNARIOL)
149-29-1 (PATULIN)
90-65-3Q (PENICILLIC-ACID)
17397-87-4Q (PENICILLIC-ACID)
582-46-7 (TERREIN)

L135 ANSWER 15 OF 17 EMBASE COPYRIGHT (c) 2008 Elsevier B.V. All rights reserved on STN DUPLICATE 1
ACCESSION NUMBER: 2008089794 EMBASE Full-text
TITLE: The hypopigmentary action of KI-063 (a new tyrosinase inhibitor) combined with terrein.
AUTHOR: Kim D.-S.; Lee S.; Lee H.-K.; Park S.-H.; Ryoo I.-J.; Yoo I.-D.; Kwon S.-B.; Kwang J.B.; Na J.-I.; Park K.-C.
CORPORATE SOURCE: K.-C. Park, Department of Dermatology, Seoul National University Bundang Hospital, 300 Gumi-Dong, Bundang-Gu, Seongnam-Si, Kyoungki-Do 463-707, Korea, Republic of. gcpark@snu.ac.kr
SOURCE: Journal of Pharmacy and Pharmacology, (Mar 2008) Vol. 60, No. 3, pp. 343-348.
Refs: 36
ISSN: 0022-3573 CODEN: JPPMAB
COUNTRY: United Kingdom
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 013 Dermatology and Venereology
037 Drug Literature Index
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 11 Mar 2008
Last Updated on STN: 11 Mar 2008
AB Resorcinol derivatives are known to inhibit melanin synthesis. In this study, resorcinol derivatives were synthesized and screened for their activity on melanogenesis. KI-063 (a tyrosinase inhibitor) was examined for its effects on melanogenesis using a spontaneously immortalized mouse melanocyte cell line (Mel-Ab). In a cell-free system, KI-063 directly inhibited tyrosinase, the

rate-limiting melanogenic enzyme. Moreover, in a cell system, it inhibited melanin synthesis in a concentration-dependent manner. In addition, KI-063 inhibited the activity of cellular tyrosinase. Thus, this study examined the effects of a combination of KI-063 with terrein, an agent that down-regulates microphthalmia-associated transcription factor. The data suggest that KI-063 has an additive effect in combination with terrein. Thus, the suppression of tyrosinase activity by KI-063 and the inhibition of tyrosinase production by terrein appear to be an optimal combination for skin whitening. .COPYRGT. 2008 The Authors.

TI The hypopigmentary action of KI-063 (a new tyrosinase inhibitor) combined with terrein.

AB Resorcinol derivatives are known to inhibit melanin synthesis. In this study, resorcinol derivatives were synthesized and screened for their activity on melanogenesis. KI-063 (a tyrosinase inhibitor) was examined for its effects on melanogenesis using a spontaneously immortalized mouse melanocyte cell line (Mel-Ab). In a cell-free system, KI-063 directly inhibited tyrosinase, the rate-limiting melanogenic enzyme. Moreover, in a cell system, it inhibited melanin synthesis in a concentration-dependent manner. In addition, KI-063 inhibited the activity of cellular tyrosinase. Thus, this study examined the effects of a combination of KI-063 with terrein, an agent that down-regulates microphthalmia-associated transcription factor. The data suggest that KI-063 has an additive effect in combination with terrein. Thus, the suppression of tyrosinase activity by KI-063 and the inhibition of tyrosinase production by terrein appear to be an optimal combination for skin whitening. .COPYRGT. 2008 The Authors.

CT Medical Descriptors:
animal cell
article
cytotoxicity
drug mechanism
enzyme synthesis
hypopigmentation
melanogenesis
mouse
nonhuman

CT Drug Descriptors:
*enzyme inhibitor: PD, pharmacology
*ki 063: CB, drug combination
*ki 063: PD, pharmacology
*monophenol monooxygenase
*terrein: CB, drug combination
*terrein: PD, pharmacology

RN (monophenol monooxygenase) 9002-10-2; (terrein) 131233-98-2, 54192-03-9, 582-46-7

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ACCESSION NUMBER: 2007142058 EMBASE Full-text
TITLE: Approaches to identify inhibitors of melanin biosynthesis via the quality control of tyrosinase.
AUTHOR: Ando H.; Kondoh H.; Ichihashi M.; Hearing V.J.
CORPORATE SOURCE: Dr. V.J. Hearing, Laboratory of Cell Biology, National Cancer Institute, National Institutes of Health, Bethesda, MD 20892, United States. hearingv@nih.gov
SOURCE: Journal of Investigative Dermatology, (Apr 2007) Vol. 127, No. 4, pp. 751-761.
Refs: 146
ISSN: 0022-202X E-ISSN: 1523-1747 CODEN: JIDEAE
PUBLISHER IDENT.: 5700683

COUNTRY: United States
DOCUMENT TYPE: Journal; General Review; (Review)
FILE SEGMENT: 013 Dermatology and Venereology
030 Clinical and Experimental Pharmacology
037 Drug Literature Index
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 13 Apr 2007
Last Updated on STN: 13 Apr 2007

AB Tyrosinase, a copper-containing glycoprotein, is the rate-limiting enzyme critical for melanin biosynthesis in specialized organelles termed melanosomes that are produced only by melanocytic cells. Inhibitors of tyrosinase activity have long been sought as therapeutic means to treat cutaneous hyperpigmentary disorders. Multiple potential approaches exist that could control pigmentation via the regulation of tyrosinase activity, for example: the transcription of its messenger RNA, its maturation via glycosylation, its trafficking to melanosomes, as well as modulation of its catalytic activity and/or stability. However, relatively little attention has been paid to regulating pigmentation via the stability of tyrosinase, which depends on its processing and maturation in the endoplasmic reticulum and Golgi, its delivery to melanosomes and its degradation via the ubiquitin-proteasome pathway and/or the endosomal/lysosomal system. Recently, it has been shown that carbohydrate modification, molecular chaperone engagement, and ubiquitylation all play pivotal roles in regulating the degradation/stability of tyrosinase. While such processes affect virtually all proteins, such effects on tyrosinase have immediate and dramatic consequences on pigmentation. In this review, we classify melanogenic inhibitory factors in terms of their modulation of tyrosinase function and we summarize current understanding of how the quality control of tyrosinase processing impacts its stability and melanogenic activity. .COPYRGT. 2007 The Society for Investigative Dermatology.

TI Approaches to identify inhibitors of melanin biosynthesis via the quality control of tyrosinase.

CT Medical Descriptors:
catalysis
enzyme degradation
genetic transcription
human
hyperpigmentation: DT, drug therapy
*melanogenesis
nonhuman
oculocutaneous albinism: ET, etiology
priority journal
protein function
protein processing
quality control
review

CT Drug Descriptors:
25 hydroxycholesterol: PD, pharmacology
3beta (2 diethylaminoethoxy)androst 5 en 17 one
agouti protein: PD, pharmacology
arbutin: PD, pharmacology
bisindolylmaleimide: PD, pharmacology
bmy 28565
broxuridine: PD, pharmacology
ceramide: PD, pharmacology
dihydrolipoate: PD, pharmacology
dithiothreitol: PD, pharmacology
ellagic acid: PD, pharmacology
epigallocatechin gallate: PD, pharmacology
ferritin: PD, pharmacology

glucosamine: PD, pharmacology
glutathione: PD, pharmacology
hydrogen peroxide: PD, pharmacology
hydroquinone: DT, drug therapy
hydroquinone: PD, pharmacology
insulin: PD, pharmacology
kojic acid: PD, pharmacology
linoleic acid: DT, drug therapy
linoleic acid: PD, pharmacology
linoleic acid: TP, topical drug administration
lysophosphatidic acid: PD, pharmacology
miglustat: PD, pharmacology
*monophenol monooxygenase: EC, endogenous compound
phenylthiourea: PD, pharmacology
sphingosine 1 phosphate: PD, pharmacology
sphingosylphosphorylcholine: PD, pharmacology
terrein: PD, pharmacology
thioctic acid: PD, pharmacology
thujaplicin: PD, pharmacology
transforming growth factor beta1: PD, pharmacology
tumor necrosis factor alpha: PD, pharmacology
unindexed drug

RN (25 hydroxycholesterol) 2140-46-7; (3beta (2 diethylaminoethoxy)androst 5 en 17 one) 3039-71-2; (arbutin) 497-76-7; (broxuridine) 59-14-3; (dihydrolipoate) 462-20-4; (dithiothreitol) 3483-12-3; (ellagic acid) 476-66-4; (epigallocatechin gallate) 989-51-5; (ferritin) 9007-73-2; (glucosamine) 3416-24-8, 4607-22-1; (glutathione) 70-18-8; (hydrogen peroxide) 7722-84-1; (hydroquinone) 123-31-9; (insulin) 9004-10-8; (kojic acid) 501-30-4; (linoleic acid) 1509-85-9, 2197-37-7, 60-33-3, 822-17-3; (miglustat) 72599-27-0; (monophenol monooxygenase) 9002-10-2; (phenylthiourea) 103-85-5; (sphingosine 1 phosphate) 26993-30-6; (sphingosylphosphorylcholine) 1670-26-4; (terrein) 131233-98-2, 54192-03-9, 582-46-7; (thioctic acid) 1077-29-8, 1200-22-2, 2319-84-8, 62-46-4; (thujaplicin) 499-44-5

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ACCESSION NUMBER: 2005407791 EMBASE Full-text
TITLE: Terrein, a melanin biosynthesis inhibitor, from Penicillium sp. 20135.
AUTHOR: Kim W.-G.; Ryoo I.-J.; Park S.-H.; Kim D.-S.; Lee S.; Park K.-C.; Yoo I.-D.
CORPORATE SOURCE: I.-D. Yoo, Korea Research Institute of Bioscience and Biotechnology, P.O. Box 115, Yusong, Daejeon 305-600, Korea, Republic of. idyoo@kribb.re.kr
SOURCE: Journal of Microbiology and Biotechnology, (Aug 2005) Vol. 15, No. 4, pp. 891-894.
Refs: 21
ISSN: 1017-7825 CODEN: JOMBES
COUNTRY: Korea, Republic of
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 013 Dermatology and Venereology
030 Clinical and Experimental Pharmacology
037 Drug Literature Index
004 Microbiology: Bacteriology, Mycology, Parasitology and Virology
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 22 Sep 2005
Last Updated on STN: 22 Sep 2005

AB In the course of screening a melanin biosynthesis inhibitor, terrein, 4,5-dihydroxy-3-propenyl-2- cyclopenten-1-one, was isolated from Penicillium sp. Terrein was found to have a strong inhibitory activity on melanin formation in B16 melanoma and melanocyte Mel-Ab cells. .COPYRGT. The Korean Society for Microbiology and Biotechnology.

TI Terrein, a melanin biosynthesis inhibitor, from Penicillium sp. 20135.

AB In the course of screening a melanin biosynthesis inhibitor, terrein, 4,5-dihydroxy-3-propenyl-2- cyclopenten-1-one, was isolated from Penicillium sp. Terrein was found to have a strong inhibitory activity on melanin formation in B16 melanoma and melanocyte Mel-Ab cells. .COPYRGT. The Korean Society for Microbiology and Biotechnology.

CT Medical Descriptors:
animal cell
article
cell line
controlled study
drug activity
drug isolation
drug mechanism
drug potency
drug screening
drug structure
melanocyte
*melanogenesis
melanoma
mouse
nonhuman
*Penicillium
species

CT Drug Descriptors:
kojic acid: CM, drug comparison
kojic acid: PD, pharmacology
melanin: EC, endogenous compound
phenylthiourea: CM, drug comparison
phenylthiourea: PD, pharmacology
*terrein: AN, drug analysis
*terrein: CM, drug comparison
*terrein: DV, drug development
*terrein: TO, drug toxicity
*terrein: EC, endogenous compound
*terrein: PD, pharmacology

RN (kojic acid) 501-30-4; (melanin) 8049-97-6; (phenylthiourea) 103-85-5; (terrein) 131233-98-2, 54192-03-9, 582-46-7

Full search history

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=> d his full

     (FILE 'HOME' ENTERED AT 16:09:27 ON 28 MAR 2008)

     FILE 'HCAPLUS' ENTERED AT 16:09:44 ON 28 MAR 2008
L1             1 SEA ABB=ON  PLU=ON  US 20070128136/PN
                 D L1
                 D SCAN

     FILE 'REGISTRY' ENTERED AT 16:10:36 ON 28 MAR 2008
L2             1 SEA ABB=ON  PLU=ON  582-46-7/RN
L3             0 SEA ABB=ON  PLU=ON  582-46-7/CRN

     FILE 'REGISTRY' ENTERED AT 16:11:33 ON 28 MAR 2008
L4               STR 582-46-7
L5             0 SEA FAM SAM L4
L6             9 SEA FAM FUL L4
L7             1 SEA ABB=ON  PLU=ON  142243-02-5/RN
L8             0 SEA ABB=ON  PLU=ON  142243-02-5/CRN

     FILE 'HCAPLUS' ENTERED AT 16:12:43 ON 28 MAR 2008
L9            62 SEA ABB=ON  PLU=ON  L2
L10           69 SEA ABB=ON  PLU=ON  L6
L11        14053 SEA ABB=ON  PLU=ON  L7
L12               QUE ABB=ON  PLU=ON  (CYCLO(W)PENTADIEN? OR CYCLO(W)PENTAN? OR
                  CYCLO(W)PENTEN?)
L13               QUE ABB=ON  PLU=ON  ((SKIN? OR DERM? OR EPIDERM? OR COMPLECTION
                  ? OR COMPLEXION? OR CUTICL?)(3A)(TROUBLE OR CONDITION OR
                  BLOTCH? OR SPOT? OR LIVER? OR AGING? OR AGE OR WHITEN? OR
                  BROWN? OR MELANIN))
L14               QUE ABB=ON  PLU=ON  ((BROWN? OR MELANIN)(3A)(SYNTHES? OR
                  INHIBIT?))
L15               QUE ABB=ON  PLU=ON  PENICILLIUM(5A)(STRAIN OR "KCTC" OR
                  "KCTC(W)262245")
L16               QUE ABB=ON  PLU=ON  TERREIN
L17           75 SEA ABB=ON  PLU=ON  TERREIN
L18            1 SEA ABB=ON  PLU=ON  L9 AND L11
L19            1 SEA ABB=ON  PLU=ON  L10 AND L11
L20            0 SEA ABB=ON  PLU=ON  L9 AND L12
L21            1 SEA ABB=ON  PLU=ON  L9 AND L13
L22            4 SEA ABB=ON  PLU=ON  L9 AND L14
L23            3 SEA ABB=ON  PLU=ON  L9 AND L15
L24            7 SEA ABB=ON  PLU=ON  L10 NOT L9
L25            0 SEA ABB=ON  PLU=ON  L24 AND L12
L26            0 SEA ABB=ON  PLU=ON  L24 AND L13
L27            1 SEA ABB=ON  PLU=ON  L24 AND L14
L28            0 SEA ABB=ON  PLU=ON  L24 AND L15
                 E TERREINS/CT
L29               QUE ABB=ON  PLU=ON  ((LIVER? OR AGE OR AGING OR BROWN? OR
                  OLD?)(3A)(SPOT? OR BLOTCH? OR MARK? OR SIGN? OR SKIN? OR
                  HAND?))
L30            0 SEA ABB=ON  PLU=ON  L9 AND L29
L31            0 SEA ABB=ON  PLU=ON  L10 AND L29
L32            0 SEA ABB=ON  PLU=ON  L17 AND L12
L33            2 SEA ABB=ON  PLU=ON  L17 AND L13
L34            6 SEA ABB=ON  PLU=ON  L17 AND L14
L35            3 SEA ABB=ON  PLU=ON  L17 AND L15
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L36        1712 SEA ABB=ON  PLU=ON  PENICILLIUM(5A)(STRAIN OR "KCTC" OR
                "KCTC(W)262245")
L37           3 SEA ABB=ON  PLU=ON  L36 AND L9
L38           3 SEA ABB=ON  PLU=ON  L36 AND L10
L39           3 SEA ABB=ON  PLU=ON  L36 AND L17
L40           0 SEA ABB=ON  PLU=ON  L36 AND L12
L41           1 SEA ABB=ON  PLU=ON  L36 AND L13
L42           3 SEA ABB=ON  PLU=ON  L36 AND L14
L43          12 SEA ABB=ON  PLU=ON  (L18 OR L19 OR L20 OR L21 OR L22 OR L23 OR
                L24 OR L25 OR L26 OR L27 OR L28)
L44           7 SEA ABB=ON  PLU=ON  (L30 OR L31 OR L32 OR L33 OR L34 OR L35)
L45           4 SEA ABB=ON  PLU=ON  (L37 OR L38 OR L39 OR L40 OR L41 OR L42)
L46          14 SEA ABB=ON  PLU=ON  (L43 OR L44 OR L45)
L47             QUE ABB=ON  PLU=ON  AY<2004 OR PY<2004 OR PRY<2004 OR MY<2004
                OR REVIEW/DT
L48           9 SEA ABB=ON  PLU=ON  L46 AND L47
L49          69 SEA ABB=ON  PLU=ON  L9 OR L10
L50          58 SEA ABB=ON  PLU=ON  L49 AND L47
L51          56 SEA ABB=ON  PLU=ON  L50 AND TERREIN
L52           0 SEA ABB=ON  PLU=ON  L51 AND "MELANIN BIOSYNTHESIS INHIBIT?"
L53           1 SEA ABB=ON  PLU=ON  L51 AND "MELANIN BIOSYNTHESIS"
L54           0 SEA ABB=ON  PLU=ON  L51 AND "MELANIN(3N)INHIBIT?"
L55           1 SEA ABB=ON  PLU=ON  L51 AND MELANIN
L56           9 SEA ABB=ON  PLU=ON  L51 AND BIOSYNTHES?
L57           7 SEA ABB=ON  PLU=ON  L51 AND INHIBIT?
L58          15 SEA ABB=ON  PLU=ON  (L52 OR L53 OR L54 OR L55 OR L56 OR L57)
                D L58 1-15 TI
L59           1 SEA ABB=ON  PLU=ON  L58 AND (MELANIN OR SKIN OR DERM?)
L60           0 SEA ABB=ON  PLU=ON  L51 AND L12
L61           1 SEA ABB=ON  PLU=ON  L51 AND L13
L62           1 SEA ABB=ON  PLU=ON  L51 AND L14
L63           2 SEA ABB=ON  PLU=ON  L51 AND L15
L64           2 SEA ABB=ON  PLU=ON  (L59 OR L60 OR L61 OR L62 OR L63)
L65           9 SEA ABB=ON  PLU=ON  L64 OR L48
                D L65 1-9 TI
L66           1 SEA ABB=ON  PLU=ON  L51 AND BIOSYNTH? AND MELANIN AND (INHIBIT?
                 OR BLOCK?)
                D L66 TI
L67           9 SEA ABB=ON  PLU=ON  L65 OR L66
                SAVE TEMP L67 BLA211HCTX/A
                E YOO I?/AU
L68         160 SEA ABB=ON  PLU=ON  ("YOO ICH DONG"/AU OR "YOO ICK D"/AU OR
                "YOO ICK DOG"/AU OR "YOO ICK DONG"/AU OR "YOO ICK JONG"/AU OR
                "YOO ICKDONG"/AU)
                E KIM W?/AU
                E KIM WON?/AU
                E KIM WON GON/AU
L69          79 SEA ABB=ON  PLU=ON  "KIM WON GON"/AU
                E RYOO IN JA/AU
L70          46 SEA ABB=ON  PLU=ON  "RYOO IN JA"/AU
                E KIM JONG PYUNG
                E KIM JONG PYUNG/AU
L71          52 SEA ABB=ON  PLU=ON  ("KIM JONG PYONG"/AU OR "KIM JONG PYUNG"/AU
                )
                E LEE SANGKU
                E LEE SANGKU/AU
L72          48 SEA ABB=ON  PLU=ON  "LEE SANGKU"/AU
                E LEE SANG KU
                E LEE SANG KU/AU
L73          30 SEA ABB=ON  PLU=ON  "LEE SANG KU"/AU
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                E PARK SEO HYOUNG/AU
L74          27 SEA ABB=ON  PLU=ON  ("PARK SEO HYEONG"/AU OR "PARK SEO
                HYOUNG"/AU)
                E PARK SEOHYOUNG/AU
L75           4 SEA ABB=ON  PLU=ON  ("PARK SEOHYOUNG"/AU OR "PARK SEOHYUNG"/AU)

                E KIM DONG SEOK/AU
L76         210 SEA ABB=ON  PLU=ON  ("KIM DONG SEOCK"/AU OR "KIM DONG SEOG"/AU
                OR "KIM DONG SEOK"/AU)
                E KIM DONGSEOK/AU
                E PARK KYOUNG CHAN/AU
L77          55 SEA ABB=ON  PLU=ON  "PARK KYOUNG CHAN"/AU
                E PARK KYOUNGCHAN/AU
                E YOO ICKDONG/AU
L78           1 SEA ABB=ON  PLU=ON  "YOO ICKDONG"/AU
                E KIM WONGON/AU
L79           0 SEA ABB=ON  PLU=ON  L69 AND L69 AND L70 AND L71 AND (L72 OR
                L73) AND (L74 OR L75) AND L76 AND L77 AND L78
L80         508 SEA ABB=ON  PLU=ON  (L68 OR L69 OR L70 OR L71 OR L72 OR L73 OR
                L74 OR L75 OR L76 OR L77 OR L78)
L81           7 SEA ABB=ON  PLU=ON  L80 AND TERREIN
L82           6 SEA ABB=ON  PLU=ON  L80 AND (L9 OR L10)
L83           7 SEA ABB=ON  PLU=ON  L81 OR L82
                D L83 1-7 AU
                D L83 1-7 TI
                SAVE TEMP L83 BLA211HCIN/A

     FILE 'MEDLINE, BIOSIS, EMBASE, DRUGU' ENTERED AT 17:03:12 ON 28 MAR 2008
L84          44 SEA ABB=ON  PLU=ON  L9
L85          45 SEA ABB=ON  PLU=ON  L10
L86          45 SEA ABB=ON  PLU=ON  L84 OR L85
L87          45 SEA ABB=ON  PLU=ON  L86 AND TERREIN
L88           2 SEA ABB=ON  PLU=ON  L87 AND L12
L89           1 SEA ABB=ON  PLU=ON  L87 AND L13
L90           7 SEA ABB=ON  PLU=ON  L87 AND L14
L91           1 SEA ABB=ON  PLU=ON  L87 AND L15
L92           9 SEA ABB=ON  PLU=ON  (L88 OR L89 OR L90 OR L91)
                D L92 1-9 TI
                D L92 1-9 AU
L93           9 SEA ABB=ON  PLU=ON  L81
                SAVE TEMP L92 BLA211MLTX/A
                SAVE TEMP L93 BLA211MLIN/A
L94           0 SEA ABB=ON  PLU=ON  L87 AND COSMET?

     FILE 'MEDLINE' ENTERED AT 17:08:02 ON 28 MAR 2008
                E SKIN CARE AGENTS/CT
L95        2944 SEA ABB=ON  PLU=ON  "SKIN CARE"/CT
                E COSMETICS/CT
L96        3922 SEA ABB=ON  PLU=ON  COSMETICS/CT
                E MELANIN
                E MELANIN/CT
L97        7428 SEA ABB=ON  PLU=ON  (MELANINS/CT OR "MELANINS: AA, ANALOGS &
                DERIVATIVES"/CT OR "MELANINS: AG, AGONISTS"/CT OR "MELANINS:
                AI, ANTAGONISTS & INHIBITORS"/CT OR "MELANINS: BI, BIOSYNTHESIS
                "/CT OR "MELANINS: CH, CHEMISTRY"/CT OR "MELANINS: ME,
                METABOLISM"/CT OR "MELANINS: PD, PHARMACOLOGY"/CT)
                E PENICILLIUM/CT
L98        5353 SEA ABB=ON  PLU=ON  PENICILLIUM/CT
L99           0 SEA ABB=ON  PLU=ON  (L9 OR L10)
L100         39 SEA ABB=ON  PLU=ON  TERREIN?
```

```
L101          0 SEA ABB=ON  PLU=ON  L100 AND L95
L102          0 SEA ABB=ON  PLU=ON  L100 AND L96
L103          2 SEA ABB=ON  PLU=ON  L100 AND L97
L104          2 SEA ABB=ON  PLU=ON  L100 AND L98
L105          2 SEA ABB=ON  PLU=ON  L99 OR (L101 OR L102 OR L103 OR L104)

     FILE 'BIOSIS' ENTERED AT 17:13:14 ON 28 MAR 2008
L106         19 SEA ABB=ON  PLU=ON  L2
L107         20 SEA ABB=ON  PLU=ON  L6
                E SKIN CARE/CT
                E SKIN CARE+ALL/CT
                E COSMETICS/CT
L108       5886 SEA ABB=ON  PLU=ON  COSMETICS/CT
                E MELANIN/CT
L109       5151 SEA ABB=ON  PLU=ON  ("MELANIELLA "/CT OR "MELANIFEROUS
                ZONA"/CT OR MELANIN/CT OR "MELANIN "/CT OR "MELANIN A"/CT OR
                "MELANIN AFFINITY"/CT OR "MELANIN ALLERGY"/CT OR "MELANIN
                ANALOGUE"/CT OR "MELANIN ASSOCIATED ANTIGEN"/CT OR "MELANIN
                BINDING PROPERTIES"/CT OR "MELANIN BIOSYNTHESIS"/CT OR
                "MELANIN BIOSYNTHESIS DEHYDRATASE INHIBITOR"/CT OR "MELANIN
                BIOSYNTHESIS GENES"/CT OR "MELANIN BIOSYNTHESIS INHIBITOR"/CT
                OR "MELANIN BIOSYNTHESIS INHIBITOR-CONTAINING COMPOSITION"/CT
                OR "MELANIN BIOSYNTHETIC ENZYMES"/CT OR "MELANIN BIOSYNTHETIC
                PATHWAY INTERMEDIATE"/CT OR "MELANIN BLEACH"/CT OR "MELANIN
                BLEACHING"/CT OR "MELANIN CELLS"/CT OR "MELANIN COLORATION"/CT
                OR "MELANIN COLUMNS"/CT OR "MELANIN COMPLEX"/CT OR "MELANIN
                COMPLEXES"/CT OR "MELANIN CONCENTRATING HORMONE"/CT OR
                "MELANIN CONCENTRATING HORMONE 1"/CT OR "MELANIN CONCENTRATING
                HORMONE 1 RECEPTOR"/CT OR "MELANIN CONCENTRATING HORMONE 2
                RECEPTOR"/CT OR "MELANIN CONCENTRATING HORMONE ANTAGONIST"/CT
                OR "MELANIN CONCENTRATING HORMONE ANTAGONIST 1"/CT OR "MELANIN
                CONCENTRATING HORMONE ANTAGONISTS"/CT OR "MELANIN CONCENTRATING
                 HORMONE MESSENGER RNA"/CT OR "MELANIN CONCENTRATING HORMONE
                MRNA"/CT OR "MELANIN CONCENTRATING HORMONE NEURONAL POPULATION"
                /CT OR "MELANIN CONCENTRATING HORMONE PRECURSOR MRNA"/CT OR
                "MELANIN CONCENTRATING HORMONE R1 ANTAGONIST"/CT OR "MELANIN
                CONCENTRATING HORMONE RECEPTOR"/CT OR "MELANIN CONCENTRATING
                HORMONE RECEPTOR 1"/CT OR "MELANIN CONCENTRATING HORMONE
                RECEPTOR 1 ANTAGONIST"/CT OR "MELANIN CONCENTRATING HORMONE
                RECEPTOR 1 ANTAGONISTS"/CT OR "MELANIN CONCENTRATING HORMONE
                RECEPTOR 2"/CT OR "MELANIN CONCENTRATING HORMONE RECEPTOR
                AGONISTS"/CT OR "MELANIN CONCENTRATING HORMONE RECEPTOR
                ANTAGONIST"/CT OR "MELANIN CONCENTRATING HORMONE RECEPTOR
                CHIMERIC PROTEIN"/CT OR "MELANIN CONCENTRATING HORMONE
                RECEPTOR FUSION PROTEIN"/CT OR "MELANIN CONCENTRATING HORMONE
                RECEPTOR LIGANDS"/CT OR "MELANIN CONCENTRATING HORMONE
                RECEPTOR MESSENGER RNA"/CT OR "MELANIN CONCENTRATING HORMONE
                RECEPTOR MRNA"/CT OR "MELANIN CONCENTRATING HORMONE RECEPTOR
                POL
                E PENICILLIUM/CT
L110          3 SEA ABB=ON  PLU=ON  PENICILLIUM/CT
L111         20 SEA ABB=ON  PLU=ON  L106 OR L107
L112          0 SEA ABB=ON  PLU=ON  L111 AND (L108 OR COSMETIC?)
L113          0 SEA ABB=ON  PLU=ON  L111 AND (SKIN OR DERM?)
L114          2 SEA ABB=ON  PLU=ON  L111 AND (L109 OR MELANIN OR MELANIZ? OR
                MELANIS?)
L115          3 SEA ABB=ON  PLU=ON  L111 AND (L110 OR PENICILLIUM)
L116         17 SEA ABB=ON  PLU=ON  L111 AND L47
                D L116 1-11 TI
L117          4 SEA ABB=ON  PLU=ON  (L112 OR L113 OR L114 OR L115)
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L118          0 SEA ABB=ON  PLU=ON  L111 AND "MELANIN BIOSYNTHESIS INHIBIT?"
L119          4 SEA ABB=ON  PLU=ON  L117 OR L118
                D L119 1-4 TI

     FILE 'EMBASE' ENTERED AT 17:21:37 ON 28 MAR 2008
L120         23 SEA ABB=ON  PLU=ON  L2
L121         23 SEA ABB=ON  PLU=ON  L6
L122         23 SEA ABB=ON  PLU=ON  L120 OR L121
                E MELANIN/CT
L123       4964 SEA ABB=ON  PLU=ON  ("MELANI D"/CT OR MELANIDINE/CT OR
                MELANIN/CT OR "MELANIZATION INHIBITING FACTOR"/CT OR "MELANIZAT
                ION INHIBITING FACTOR: EC, ENDOGENOUS COMPOUND"/CT OR "MELANIZA
                TION INHIBITING PROTEIN"/CT OR "MELANIZATION INHIBITING
                PROTEIN: EC, ENDOGENOUS COMPOUND"/CT OR "MELANIZATION PROTEASE
                1"/CT)
                E COSMETICS/CT
                E COSMETIC/CT
L124       6159 SEA ABB=ON  PLU=ON  COSMETIC/CT
L125          2 SEA ABB=ON  PLU=ON  L122 AND L123
L126          5 SEA ABB=ON  PLU=ON  L122 AND MELANIN
L127          0 SEA ABB=ON  PLU=ON  L122 AND L124
L128          0 SEA ABB=ON  PLU=ON  L122 AND "MELANIN BIOSYNTHESIS INHIBIT?"
L129         31 SEA ABB=ON  PLU=ON  TERREIN
L130         31 SEA ABB=ON  PLU=ON  L122 OR L129
L131          5 SEA ABB=ON  PLU=ON  L130 AND (MELANIN? OR MELANIZ? OR MELANIS?)

L132          5 SEA ABB=ON  PLU=ON  (L125 OR L126 OR L127 OR L128)
L133          5 SEA ABB=ON  PLU=ON  L131 OR L132
                D L133 1-5 TI
                D QUE L83
                D QUE L93

     FILE 'HCAPLUS, MEDLINE, BIOSIS' ENTERED AT 17:29:23 ON 28 MAR 2008
L134         10 DUP REM L83 L93 (6 DUPLICATES REMOVED)
                     ANSWERS '1-7' FROM FILE HCAPLUS
                     ANSWERS '8-10' FROM FILE MEDLINE
                D L134 1-10 IBIB AB
                D QUE L67
                D QUE L92
                D QUE L104
                D QUE L119
                D QUE L133

     FILE 'HCAPLUS, BIOSIS, EMBASE, MEDLINE' ENTERED AT 17:31:04 ON 28 MAR 2008
L135         17 DUP REM L67 L92 L104 L119 L133 (12 DUPLICATES REMOVED)
                     ANSWERS '1-9' FROM FILE HCAPLUS
                     ANSWERS '10-14' FROM FILE BIOSIS
                     ANSWERS '15-17' FROM FILE EMBASE
                D L135 1-9 IBIB ED ABS HITIND HITSTR
                D L135 10-17 IBIB AB HIT


     FILE HOME

     FILE HCAPLUS

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     26, 1996), unless otherwise indicated in the original publications.
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FILE COVERS 1907 - 28 Mar 2008 VOL 148 ISS 14
FILE LAST UPDATED: 27 Mar 2008 (20080327/ED)

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This file contains CAS Registry Numbers for easy and accurate
substance identification.

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Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES: 27 MAR 2008 HIGHEST RN 1010733-70-6
DICTIONARY FILE UPDATES: 27 MAR 2008 HIGHEST RN 1010733-70-6

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH January 9, 2008.

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document. For information
on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

FILE MEDLINE
FILE LAST UPDATED: 27 Mar 2008 (20080327/UP). FILE COVERS 1949 TO DATE.

MEDLINE has been updated with the National Library of Medicine's
revised 2008 MeSH terms. See HELP RLOAD for details.

This file contains CAS Registry Numbers for easy and accurate
substance identification.

FILE BIOSIS
FILE COVERS 1926 TO DATE.
CAS REGISTRY NUMBERS AND CHEMICAL NAMES (CNs) PRESENT
FROM JANUARY 1926 TO DATE.

RECORDS LAST ADDED: 26 March 2008 (20080326/ED)

BIOSIS has been augmented with 1.8 million archival records from 1926
through 1968. These records have been re-indexed to match current
BIOSIS indexing.

FILE EMBASE
FILE COVERS 1974 TO 28 Mar 2008 (20080328/ED)

EMBASE is now updated daily. SDI frequency remains weekly (default)
and biweekly.

This file contains CAS Registry Numbers for easy and accurate substance identification.

Beginning January 2008, Elsevier will no longer provide EMTREE codes as part of the EMTREE thesaurus in EMBASE. Please update your current-awareness alerts (SDIs) if they contain EMTREE codes.

For further assistance, please contact your local helpdesk.

FILE DRUGU
FILE LAST UPDATED: 28 MAR 2008 <20080328/UP>
>>> DERWENT DRUG FILE (SUBSCRIBER) <<<

>>> FILE COVERS 1983 TO DATE <<<
>>> THESAURUS AVAILABLE IN /CT <<<